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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,891	08/31/2001	Donald J. Remboski	IA00011	4081

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/944,891	REMBOSKI ET AL.	
	Examiner	Art Unit	
	Raj K. Jain	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/13/2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Examiners amendement.*

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behfar et al (WO 00/77620 A2) in view of Oliveira et al (US006579208B2), further in view of Lee et al. (US006609127B1).

Regarding claims 1, 2 and 14, Behfar discloses a system for integrating components into a vehicle, wherein the components comprise devices (29-37) coupled to an in-car network (fig 2), the devices (29-37) communicating via connection media 12 (fig 1), and the network further providing easy reconfiguration and upgrade to the vehicle devices (see abstract, page 2 lines 7-35) as necessary. Furthermore, the first device communicates with the second device using the IP address designated for return communications forming a loop communications path.

Behfar fails to disclose the coupling of devices through an active network for controlling the flow of data amongst the devices.

Oliveira discloses the use of a control area network (CAN) within vehicles for the purpose of transferring data amongst different devices (such as brakes, fuel control, climate control, suspension, etc. see col 3 lines 7-31). The CAN system electronically interconnects all the network members by a simple two wire, twisted pair cable and

provides high-speed serial digital data transfer between all members in the system. The network members consist of the various vehicle systems and sub-systems, or in many cases, their electronic control units. Oliveira uses the CAN for monitoring gearshift control with digital data interface to allow transfer of digital data between the control unit and other vehicle systems through the CAN system (see col 4 lines30-60). Since CANs may be used to control any number of vehicular components as well as the gear shift control (see col 3 line 20), thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CAN network within Behfar to control plurality of network devices in order to control the flow of data amongst the devices as appropriate.

Behfar discloses a system for integrating components into a vehicle, wherein the components comprise devices (29-37) coupled to an in-car network (fig 2).

Oliveira discloses the use of a control area networks (CAN) within vehicles.

Behfar and Oliveira fail to disclose the use of active networks.

Lee discloses coupling of devices (within a home or business see col 2 line 20) through the use of control area networks (CAN), which also comprises of active networks such as WANs, LANs, etc. as well as passive networks such as fibreoptic links (see col 3 lines 29-35). Active networks and CANs provide coupling of network devices to effectively communicate throughout the network for controlling traffic flow through dynamic adaptation of processing elements deployed within the network, (see Figs 1 & 2, col 3 lines 19-27, col 4 lines 32-36).

Since CANs and active networks both provide a communications coupling and controlled data flow through network devices, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of a CAN within Behfar for the purpose of controlling and dynamically reconfiguring data flow through any number of network devices within a vehicle that may also include active networks such as in-car Ethernet LAN.

Further regarding claim 14, Behfar discloses first network element coupled with second network element using a first network protocol and second network element communicating with another network element different from first element with a second network protocol. (see Fig 2, page 3 line 40 – page 4 lines 15, the first element may be for example GPS receiver (30) that communicates with second network element such as vehicle bus (23) via the first protocol. Second network element (vehicle bus 23) communicating coupled to another network element different from first network element using a second network protocol, see claims 4-6).

Regarding claims 3-5 and 15, Behfar discloses active network elements that can be replaced or reconfigured which may also include switch, router and/or bridge (page 6 lines 1-30 that may include a switch, router or bridge for packet transfer).

Regarding claims 6, Behfar discloses packet data network (see abstract, page 3 L40).

Regarding claims 7, 19 and 20, Behfar discloses loop topology with first network element that may be considered to be a node a connected via the vehicle network platform to any other element say node B in circular path forming the loop (see Fig 2).

Regarding claims 8, and 21, Behfar discloses different media within a network that may be supported, each media and therefore path consists of different data rates which is fundamental to the media of choice and therefore a loop with for example with elements employing a optical ring would have a data different than those employing twisted pair wires (see Fig 2, page 3 lines 30-40).

Regarding claims 9, 10, 12, 13 and 18, Behfar discloses loop/ring or multidrop topology comprising of one or plurality of active network elements (see Fig 2 and abstract) based on desired configurations of the user.

Regarding claims 11, 22, Behfar discloses a vehicle structure with plurality of active network elements configured in loop topology if only two devices are used thus a configuration consisting of first device in loop with second device would be formed (see abstract, Fig 2).

Regarding claim 16, Behfar discloses first and second network protocols that may be in accordance with shared – access bus (23) (see Fig 2, page 4 lines 15-26) protocol, (The buses may function as devices themselves and therefore have same protocols).

Regarding claim 17, Behfar discloses first network element coupled with second network element using a first network protocol and second network element communicating with another network element different from first element with a second

network protocol. (see Fig 2, page 3 line 40 – page 4 lines 15, the first element may be for example GPS receiver (30) that communicates with second network element such as vehicle bus (23) via the first protocol. Second network element (vehicle bus 23) communicating coupled to another network element different from first network element using a second network protocol, see claims 4-6).

Regarding claim 18, Oliveira and Lee discloses CAN protocol (see abstract of Oliveira and Fig 5a, col 3 lines 58-67 and Fig 1 of Lee).

Response to Arguments

Applicant's arguments filed 3 February 2006 have been fully considered but they are not persuasive.

With respect to claims 1-22, Applicant contends the cited references fails to teach or suggest an active network that is claimed with a specific physical structure namely an "active network known to have particular characteristics within a vehicle. This active network is not a CAN network, a bus architecture and a passive network.",

The examiner respectfully disagrees, clear in the pending claims, the applicants claim a vehicle that includes an "active network" configured for communicating between devices with plurality of communications paths. The applicant does not claim any specific type of "active network" whether it is a CAN, bus or passive network and there is no special definition of the term "active network", therefore such term must be given its plain meaning, i.e. it must be read as it would be interpreted by those of ordinary skill in the art."

Thus with this in mind, the combination of references used clearly discloses an "active network" and its use within a vehicle architecture.

Behfar discloses a system for integrating components into a vehicle, wherein the components comprise devices (29-37) coupled to an in-car network (fig 2).

Oliveira discloses the use of a control area network (CAN) within vehicles for the purpose of transferring data amongst different devices (such as brakes, fuel control, climate control, suspension, etc. see col 3 lines 7-31). The CAN system electronically interconnects all the network members by a simple two wire, twisted pair cable and provides high-speed serial digital data transfer between all members in the system. The network members consist of the various vehicle systems and sub-systems, or in many cases, their electronic control units. Oliveira uses the CAN for monitoring gearshift control with digital data interface to allow transfer of digital data between the control unit and other vehicle systems through the CAN system (see col 4 lines30-60). Since CANs may be used to control any number of vehicular components as well as the gear shift control (see col 3 line 20), thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CAN network within Behfar to control plurality of network devices in order to control the flow of data amongst the devices as appropriate.

Again, Behfar discloses a system for integrating components into a vehicle, wherein the components comprise devices (29-37) coupled to an in-car network (fig 2).

Oliveira discloses the use of a control area networks (CAN) within vehicles.

Behfar and Oliveira fail to disclose the use of active networks.

However, Lee discloses coupling of devices (within a home or business see col 2 line 20) through the use of control area networks (CAN), which also comprises of active networks such as WANs, LANs, etc. as well as passive networks such as fibreoptic links (see col 3 lines 29-35). Active networks and CANs provide coupling of network devices to effectively communicate throughout the network for controlling traffic flow through dynamic adaptation of processing elements deployed within the network, (see Figs 1 & 2, col 3 lines 19-27, col 4 lines 32-36).

Since CANs and active networks both provide a communications coupling and controlled data flow through network devices, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of a CAN within Behfar for the purpose of controlling and dynamically reconfiguring data flow through any number of network devices within a vehicle that may also include active networks such as in-car Ethernet LAN.

Thus since the combination clearly discloses the use of "active networks" as disclosed by applicants claims, therefore, claims 1-22 stand rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

RJ
March 29, 2006

CHI PHAM
SUPERVISORY PATENT EXAM
5/1/06